

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please cancel claims 3, 8, 12, 14 and 15 without prejudice or disclaimer.

Please rewrite claims 1, 2, 4-7, 9-11, 13, 16, 21, 23-27 and 29 as follows.

Listing of Claims:

1. (currently amended) A lithium secondary battery, comprising:

a cylindrical battery case provided with electrode caps at both end portions;

an electrode body contained in the battery case and including a positive electrode, a negative electrode, and a separator, the positive electrode and the negative electrode being wound or laminated through the separator; and

an elastic body disposed between said battery case and at least one of said electrode caps with a portion ~~portions~~ where said battery case contacts said elastic body being brought into press-contact to form a caulked portion to seal said battery case,

wherein, ~~with R_{body} (mm) being is a diameter of a body part of said battery case~~ and R_{top} (mm) being is a diameter of said caulked portion, and R_{body} and R_{top} fulfill a relationship of $R_{\text{body}} > R_{\text{top}}$ and wherein a difference between said R_{body} (mm) and said R_{top} (mm) is ΔR (mm), and ΔR fulfills a relationship of $\Delta R \leq 5$ (mm).

2. (currently amended) The lithium secondary battery according to claim 1, wherein said battery case ~~is made of~~ comprises Al or Al alloy.

3. (canceled)

4. (currently amended) The lithium secondary battery according to claim 1, wherein said R_{body} and said ΔR fulfill a relationship of $(\Delta R/R_{\text{body}}) \times 100 \leq 10(\%)$.
5. (currently amended) The lithium secondary battery according to claim 1, wherein, ~~with said caulked portion;~~ a deformation quantity in a press-contacting direction of said press-contacted elastic body is larger than a spring-back quantity, and a press-contact force applied to said elastic body is not more than a press-contact force with an elasticity maintaining rate of said elastic body being not less than 95%.
6. (currently amended) The lithium secondary battery according to claim 1, wherein said elastic body is ~~made of~~ comprises any of ethylene propylene rubber, polyethylene, polypropylene and fluoro-resin.
7. (currently amended) The lithium secondary battery according to claim 1, wherein at least one of said electrode caps ~~cap~~ comprises an electrolyte solution injection port.
8. (canceled)
9. (currently amended) A lithium secondary battery, comprising:
a cylindrical battery case provided with electrode caps at both end portions ~~thereof with electrode caps having battery caps, internal terminals and external terminals;~~ and
an electrode body ~~impregnated with a nonaqueous electrolyte solution and~~ contained in the battery case and including a positive electrode, a negative electrode, and a separator, the positive electrode and the negative electrode being wound or laminated through the separator[[:]].

~~wherein at least one portion~~ where said battery case is in contact with said electrode caps ~~being is~~ brought into press-contact to form a caulked ~~portions~~ portion and is welded to execute sealing,

wherein, with R_{body} (mm) ~~being is~~ a diameter of a body part of said battery case~~[[,]]~~ and R_{top} (mm) ~~being is~~ a diameter of said caulked portion, ~~and~~ R_{body} and R_{top} fulfill a relationship of $R_{\text{body}} > R_{\text{top}}$ ~~[[,]]~~, and ~~wherein a difference between said~~ R_{body} (mm) and said R_{top} (mm) is ΔR (mm), and ΔR fulfills a relationship of $\Delta R \leq 5$ (mm) and ~~tip portions of said battery case and outer periphery portions of said electrode caps are brought into joining by welding.~~

10. (currently amended) The lithium secondary battery according to claim 9, wherein said battery case is ~~made of~~ comprises Al or Al alloy.

11. (currently amended) The lithium secondary battery according to claim 9, wherein said ~~battery cap electrode caps~~ and said external terminal are ~~made of~~ terminals comprise Al or Al alloy.

12. (canceled)

13. (currently amended) The lithium secondary battery according to claim 9~~[[12]]~~, wherein said R_{body} and said ΔR fulfill a relationship of $(\Delta R/R_{\text{body}}) \times 100 \leq 10(\%)$.

Claims 14-15: (canceled)

16. (currently amended) The lithium secondary battery according to claim 9, wherein a squeezed portion is formed in the very vicinity of the an outer ~~periphery peripheral~~ portion of said electrode ~~caps~~.
17. (previously presented) The lithium secondary battery according to claim 1, wherein battery capacity is 2 Ah or more.
18. (previously presented) The lithium secondary battery according to claim 1 to be mounted on a vehicle.
19. (original) The lithium secondary battery according to claim 18 for starting an engine.
20. (previously presented) The lithium secondary battery according to claim 18 for an electric vehicle or a hybrid electric vehicle.
21. (currently amended) A manufacturing method of a lithium secondary battery, comprising the steps of:
- forming a battery element by joining respective electricity collection ~~tabs~~ parts provided in both ends of an internal electrode body which is structured by winding a positive electrode and a negative electrode via a separator around the outer periphery of a winding core and respective internal terminal portions of two electrode caps together;
 - inserting said battery element into a battery case with both ends being left open;
 - joining respective both end portions of said battery case with respective outer periphery portions of said two electrode caps; ~~and~~

injecting electrolyte solution from an electrolyte solution injection port provided in at least one electrode cap; and
sealing said electrolyte solution injection port.

22. (original) The manufacturing method of a lithium secondary battery according to claim 21, wherein respective both end portions of said battery case and respective outer periphery portions of said two electrode caps are joined, and at the same time, or therebefore/thereafter said electrode cap of said battery case undergoes squeezing in the very vicinity portion of an outer periphery portion.

23. (currently amended) The manufacturing method of a lithium secondary battery according to claim 21, wherein a caulking and/or welding method is used as a method for joining said battery case and said electrode ~~cap~~caps.

24. (currently amended) The manufacturing method of a lithium secondary battery according to claim 23, wherein, at the time of said caulking operation, an elastic body is arranged between said battery case and said electrode ~~cap~~caps.

25. (currently amended) The manufacturing method of a lithium secondary battery according to claim 24, wherein, ~~as~~ said elastic body~~[[,]]~~ comprises any one of ethylene propylene rubber, polyethylene, polypropylene and fluororesin ~~is used~~.

26. (currently amended) The manufacturing method of a lithium secondary battery according to claim 23, wherein, at the time of said welding operation, a YAG laser is used as an energy source.

27. (currently amended) The manufacturing method of a lithium secondary battery according to claim 21, wherein, ~~as said battery case~~ comprises any one of made of aluminum or and aluminum alloy is used.

28. (previously presented) The lithium secondary battery according to claim 9, wherein said battery case is shaped as a pipe.

29. (currently amended) The lithium secondary battery according to claim 9, wherein an entire area of ~~said~~ tip portions of said battery case and said electrode cap are joined by said welding.